



PUBLIC NOTICE

Federal Communications Commission
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DA 01-1582
MM Docket No. 01-145
Released: July 5, 2001

PLEADING CYCLE ESTABLISHED FOR COMMENTS ON REQUEST FOR DECLARATORY RULING TO REMOVE MINIMUM SUB-CARRIER REQUIREMENT FOR ORTHOGONAL FREQUENCY DIVISION MULTIPLEXING MODULATION IN MULTIPOINT DISTRIBUTION SERVICE AND INSTRUCTIONAL TELEVISION FIXED SERVICE

Comment Date: July 19, 2001

Reply Comment Date: July 26, 2001

By the Chief, Video Services Division:

1. On March 13, 2001, Cisco Systems, Inc. ("Cisco") filed a request that the Commission remove a restriction on permitted Orthogonal Frequency Division Multiplexing ("OFDM") modulation in the Multipoint Distribution Service ("MDS") and Instructional Television Fixed Service ("ITFS"). Specifically, Cisco requests the Commission declare that a minimum of 256 QAM-modulated carriers (or tones) is not necessary in order to use OFDM modulation in the MDS and ITFS.

2. On July 9, 1996, the Commission adopted a declaratory ruling which permits stations operating in the MDS and ITFS to utilize certain digital emissions on a regular basis, so long as those emissions meet certain requirements for power spectral uniformity and out-of-band emissions.¹ The Commission amended its channel utilization policy to permit the routine authorization of digital transmissions using Vestigial Sideband Modulation ("VSB") and Quadrature Amplitude Modulation ("QAM"), and indicated that the Commission would consider authorizing the use of other digital modulation schemes based upon demonstrations of noninterference.² In a subsequent proceeding, the Commission adopted technical rule changes to provide MDS and ITFS licensees flexibility to fully employ digital technology in delivering two-way communication services and expanded the list of permissible modulation techniques to include Code Division Multiple Access ("CDMA") and Quadrature Phase Shift Keying ("QPSK") modulation.³

¹ See *Request for Declaratory Ruling on the Use of Digital Modulation by Multipoint Distribution Service and Instructional Television Fixed Service Stations, Declaratory Ruling and Order ("Digital Declaratory Ruling")*, 11 FCC Rcd 18839 (1996).

² *Id.*

³ See *Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions ("Two-Way Order")*, 13 FCC Rcd 19112 (1998), *recon.*, 14 FCC Rcd 12764 (1999), *further recon.*, 15 FCC Rcd 14566 (2000); see also 47 C.F.R. § 21.905.

3. On August 31, 1998, Clarity Wireless, Inc. ("Clarity")⁴ filed a Petition for Declaratory Ruling requesting that the Commission authorize the use of OFDM digital modulation to provide MDS and ITFS networking. Based on a study commissioned by Clarity, the Commission declared that OFDM could be used in the MDS and ITFS and required that a minimum of 256 QAM-modulated carriers (or "tones") be utilized.⁵

4. In support of its request that the Commission remove the 256 QAM-modulation requirement, Cisco states the Commission has encouraged the use of new digital modulation techniques and established a flexible technology policy whereby advanced digital technologies would be authorized on a case-by-case basis. Cisco notes that the Commission has previously indicated that it would approve certain digital modulation types without test data if it were determined to be a subset of an already approved modulation type.⁶ Cisco asserts that the 256-tone limit adopted in the *OFDM Order* needlessly constrains the OFDM modulations, thereby preventing greater efficiencies in MDS/ITFS operations.⁷ Cisco states that removal of the 256 QAM-modulation requirement will allow designers to optimize their systems based on various channels and allow operators to provide a wider range of services to consumers.⁸

5. Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentations must contain summaries of the substance of the presentations and not merely a listing of the subjects discussed. More than a one or two sentence description of the views and arguments presented is generally required. See 47 C.F.R. § 1.1206(b). Other rules pertaining to oral and written *ex parte* presentations in permit-but disclose proceedings are set forth in Section 1.1206(b) of the Commission's rules, 47 C.F.R. § 1.1206(b).

6. Comments must be filed on or before July 19, 2001, and reply comments by July 26, 2001. All documents filed in this proceeding should indicate in the caption that this matter is before the Mass Media Bureau and reference MM Docket No. 01-145. Comments may be filed via the Commission's Electronic Comment Filing System (ECFS) via the Internet to [http:// www.fcc.gov/e - file/ecfc.html](http://www.fcc.gov/e-file/ecfc.html)>. In completing the transmittal screen, commenters should include their full name and Postal Service mailing address, and reference MM Docket No. 01-145. Parties may also submit electronic comments by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to: ecfs@fcc.gov, including "get form <your e-mail address>" in the body of the message. A sample form and directions will be sent in reply. Interested parties who choose to file by paper must file an original and four copies of their comments with the Office of the Secretary, Federal Communications Commission, 445 Twelfth Street, S.W., Room TW-A325, Washington, D.C. 20554. In addition, parties should send: one paper copy to Brad Lerner, Room 2-A733, Mass Media Bureau, Video Services

⁴ Subsequently, on November 2, 1998, Cisco Systems, Inc. acquired Clarity.

⁵ See *Request for Declaratory Ruling on the Use of Orthogonal Frequency Division Multiplexing Modulation by Multipoint Distribution Service and Instructional Television Fixed Service Stations*, Declaratory Ruling and Order ("OFDM Order"), 14 FCC Rcd 4121 (1999); see also 47 C.F.R. § 21.905.

⁶ See *Cisco's Petition for Declaratory Ruling* (filed March 13, 2001) at 3.

⁷ *Id.* at 4.

⁸ *Id.* at 8.

Division, Federal Communications Commission, 445 Twelfth Street, S.W., Washington, D.C. 20554; one paper copy to the Reference Information Center, Federal Communications Commission, 445 Twelfth Street, S.W., 20554; and one paper copy and one diskette copy to ITS, Room CYB-400, 445 Twelfth Street, S.W., Washington, D.C. 20554.

For further information, contact Brad Lerner, Mass Media Bureau, Video Services Division at 202-418-7066 (email: blerner@fcc.gov).

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